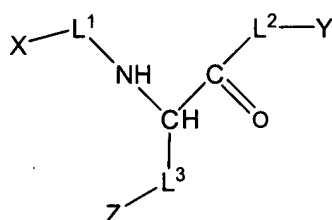


This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

- 1                    1.        (Previously presented) A heterofunctional crosslinking reagent having  
2        the formula:



3        wherein

4                    L¹ and L² are each independently selected from the group consisting of a bond, a  
5                    substituted or unsubstituted (C₂-C₂₄) alkylene group, a substituted or  
6                    unsubstituted (C₂-C₂₄) heteroalkylene group, a polyethyleneglycol group, a  
7                    polyalcohol group, a polyamine group, a polyester group and a  
8                    polyphosphodiester group;

9                    -L³-Z is an optionally protected amino acid side chain having a pendant reactive  
10                    group, said reactive group selected from the group consisting of lysine,  
11                    cysteine, serine, aspartic acid, glutamic acid, and threonine;

12                    X is a non-covalent protein tag binder that specifically binds to a protein tag portion  
13                    of a protein; and

14                    Y is a photoactivatable covalent crosslinking group adapted to covalently link the  
15                    heterofunctional crosslinking reagent at or adjacent to said protein tag, said  
16                    said photoactivatable covalent crosslinking group is a member selected from  
17                    the group consisting of aryl ketones, azides, diazo compounds, diazirenes, and  
18                    ketenes.

1                    2.-4.    (Canceled)

1 6.-8. (Canceled)

1 10.-25. (Canceled)

$$\begin{array}{c} X-L^1 \\ | \\ NH \\ | \\ CH \\ | \\ Z-L^3 \end{array} \quad \begin{array}{c} L^2-Y'-Protein \\ | \\ C=O \end{array}$$

4 L<sup>1</sup> and L<sup>2</sup> are each independently selected from the group consisting of a bond, a  
5 substituted or unsubstituted (C<sub>2</sub>-C<sub>24</sub>) alkylene group, a substituted or  
6 unsubstituted (C<sub>2</sub>-C<sub>24</sub>) heteroalkylene group, a polyethyleneglycol group, a  
7 polyalcohol group, a polyamine group, a polyester group and a  
8 polyphosphodiester group;

12 X is a non-covalent protein tag binder that specifically binds to a protein tag portion  
13 of **[[a]] said** protein; and

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16                   group covalently attached at or adjacent to said protein tag **portion of said**  
17                   **protein**, said photoactivatable covalent crosslinking group is a member  
18                   selected from the group consisting of aryl ketones, azides, diazo compounds,  
19                   diazirenes, and ketenes.

1                   27.-77. (Canceled)

1                   78.     (Previously presented) A heterofunctional crosslinking reagent of  
2                   claim 1, wherein X is an antibody or antibody fragment.